

Remarks/Arguments

I. Status of the Claims:

Claims 31-36, 51, 54, 60-62, 66, 69-76 and 80-88 have been previously cancelled. Claims 89-111 stand rejected. Claims 89 and 103 are presently amended. Claims 89-111 are pending in the case.

II. Rejections Under 35 USC §103:

Claims 89-95, 99-106 and 108-111 stand rejected under 35 U.S.C §103(a) as allegedly being obvious over Shalon, *et al.* (WO 95/35505, hereinafter “Shalon”) in view of Bangs Laboratories, Inc., TechNote #201 “Working with Microspheres”, published Aug. 29, 1999 (hereinafter “Bangs”) and further in view of U.S. patent No. 4,444,879 granted to Foster, *et al.* (hereinafter “Foster”). Applicant respectfully disagrees with these rejections for at least the following reasons.

In order to reject a claim as obvious, the Examiner has the burden of establishing a prima facie case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (CCPA 1967). To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). See also, e.g., MPEP §2143.03. Applicant submits that the Shalon and the Bangs references, taken alone or in combination, do not meet at least this standard.

On page 3 of the Office action, the Examiner appears to outline the basis of the rejections, asserting that Shalon teaches all the features presently claimed, but “not specifically teaching solid supports or microarrays coated with dual antibodies or antigens for assay procedures” (see Office action, page 3, last sentence). The Examiner then asserts that this allegedly missing feature is taught by the Bangs reference, stating “the reference to Bangs Laboratories, Inc. identifies various tests, which can be useful with coated supports. These methods include agglutination test, ELISAs, turbidimetric immunoassays, sandwich test, and solid phase assays. Page 1 Introduction. In one embodiment the use of two antibodies(Ab) are employed such that one polyclonal Ab is adsorbed onto a particle (inner coating) and used to bind another monoclonal Ab (outer coat). The antibody on the outer layer (monoclonal) becomes more accessible because it sticks out further into the aqueous phase for greater antigen binding. See page 8 1st column 3rd paragraph” (Office action, page 4, first full paragraph). However, the very feature for which Bangs appears to be relied on, namely “solid supports ... coated with dual antibodies or antigens for assay procedures” and “the use of two antibodies (Ab) are employed such that one polyclonal Ab is

adsorbed onto a particle (inner coating) and used to bind another monoclonal Ab (outer coat)" does not even appear in the instant claims. Indeed, the claims are completely silent with regard to such "dual antibodies". Perhaps the Examiner has interpreted the feature "wherein each of the discrete locations comprises one or more spots of an antibody bound to the solid surface, wherein two or more of the discrete locations contain different antibodies" appearing in claim 89 to mean "dual antibodies... are employed such that one polyclonal Ab is adsorbed onto a particle (inner coating) and used to bind another monoclonal Ab (outer coat)", though it is impossible for Applicant to discern at this time since the very feature "dual antibodies" is not germane to the claims. If this is the case, then Applicant wishes to point out that the feature "wherein each of the discrete locations comprises one or more spots of an antibody bound to the solid surface, wherein two or more of the discrete locations contain different antibodies" is not equivalent to "solid supports ... coated with dual antibodies or antigens ... such that one polyclonal Ab is adsorbed onto a particle (inner coating) and used to bind another monoclonal Ab (outer coat)". Instead, the instantly claimed feature means that a different antibody is present at each of the plurality of discrete locations present on the solid surface. If Applicant has misinterpreted the Examiner's argument, then the Examiner is invited to contact Applicant's agent of record at the number appearing below in order to clarify our understanding of each other. Additionally, claim 88 has been amended for clarification to recite "wherein a plurality of the discrete locations contain antibodies that are different from the antibodies of the other discrete locations".

Additionally, claim 89 has been amended to recite, in part, the feature "a first detectable label for labeling a first protein sample; optionally a second detectable label for detectably labeling a second protein sample, wherein the second detectable label is different from the first detectable label". Shalon fails to teach such a feature. Instead, Shalon only describes labeled nucleic acids for hybridization to substrate-bound oligonucleotides. For example, Shalon states "detecting differential expression of each of a plurality of genes in a first cell type, with respect to expression of the same genes in a second cell type. In practicing the method, there is first produced 30 fluorescent-labeled cDNA's from mRNA's isolated from the two cells types, where the cDNA'S from the first and second cells are labeled with first and second different fluorescent reporters" (Shalon, pg 28, lines 15-25). Nowhere does Shalon appear to contemplate providing first or second labels for protein samples. Bangs fails to remedy this deficiency since Bangs also is completely silent with regard to the feature "a first detectable label for labeling a first protein sample; optionally a second detectable label for detectably labeling a second protein sample, wherein the second detectable label is different from the first detectable label".

For at least these reasons, Applicant respectfully submits that a *prima facie* case of obviousness against claim 89 using the asserted combination of the Shalon, Bangs and Foster references has not been established. Accordingly, Applicant respectfully submits that claim 89, as well as the claims 90-95, 99-106 and 108-111 depending therefrom, are unobvious and are patentable over the combined references. “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious” *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Claims 96-98 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Shalon, Bangs and Foster as described above and further in view of Unla. Applicant respectfully disagrees with these rejections and submits that for at least the reasons stated above with respect to claim 89 and incorporated herein, the claims are unobvious over the cited references.

Claim 107 stands rejected under 35 U.S.C. §103 as allegedly being obvious over Shalon, Bangs, Foster and Unla as described above and further in view of Ragg and Whitlow. Applicant respectfully disagrees with these rejections and submits that for at least the reasons stated above with respect to claim 89 and incorporated herein, the claim is unobvious over the cited references.

CONCLUSION

Applicant hereby respectfully petitions under 37 C.F.R. § 1.136(a) a three (3)-month extension of time for submission of this response and submits the required extension fee via electronic filing. Any additional fees (including but not limited to appropriate petition fees or fees for net addition of claims) are hereby authorized to be charged to our **Deposit Account No. 50-3994**, from which the undersigned is authorized to draw funds.

Respectfully submitted,

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